

ABSTRACT

A wheel housing unit is connected to a vehicle processing unit for each travelling wheel, which unit comprises a current supply unit connected to an on-board mains, an interface unit connected to a bus system, a control unit, a storage unit, an HF signal generator, a modulator/demodulator, an amplifier unit and at least one antenna, a transponder component is arranged in or on each tyre, which component comprises a circuit board with an electronic circuit, which incorporates at least one pressure and/or temperature sensor, an HF transponder circuit with receiving, transmitting and signal processing components and a rectifier and smoothing circuit, a coupling coil connecting the input terminals of the electronic circuit and surrounding an I-core, and a U-core magnetically coupled to the I-core, and is provided with an envelope provided with an air inlet and connected to the tyre, and where each tyre has a ring conductor which is arranged coaxially, penetrates the U-core and is thereby inductively coupled to it, and consists of flexible material (Fig. 2).